

Mini Series: Cable-Extension Position Transducer

Short Range: 0-3 in., 0-5 in.

Crash Test • Flight Test • OEM Applications

Precision Potentiometric Output



MTA



Specification Summary:

GENERAL

Full Stroke Ranges 0-3 and 0-5 inches, min.
 Output Signal voltage divider (potentiometer)
 Accuracy $\pm 0.15\%$ full stroke
 Repeatability $\pm 0.02\%$ full stroke
 Resolution essentially infinite
 Potentiometer Cycle Life 50×10^6 cycles*
 Measuring Cable 0.024-in. dia. nylon-coated stainless steel
 Enclosure Material anodized aluminum
 Sensor conductive plastic potentiometer
 Weight (maximum) 3-inch: 0.10 lbs., 5-inch: 0.26 lbs.

ELECTRICAL

Input Resistance 5K ohms ($\pm 10\%$)
 Power Rating, Watts 1.0 at 40°C (derated to 0 @ 110°C)
 Recommended Maximum Input Voltage 30V (AC or DC)
 Temperature coefficient of voltage dividing ratio < 2 ppm/°C
 Temperature coefficient of resistance
 -50...+75°C ± 200 ppm/°C
 +75...+100°C ± 300 ppm/°C
 Output Signal Change Over Measurement Range 94% $\pm 4\%$ of input voltage

MECHANICAL

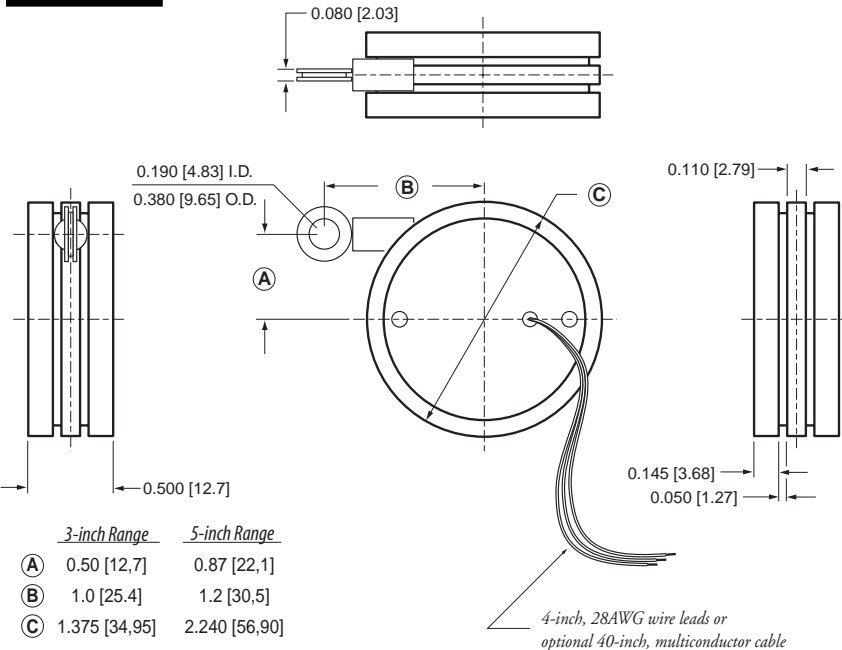
Measuring Cable Tension 1.6 oz. ($\pm 25\%$)

ENVIRONMENTAL

Enclosure Design NEMA 12, IP65
 Operating Temperature -55° to 100°C

*note: potentiometer cycle life is defined as the minimum number of times the measuring cable can be fully extended and retracted before any measureable degradation of the output signal occurs.

Dimensions

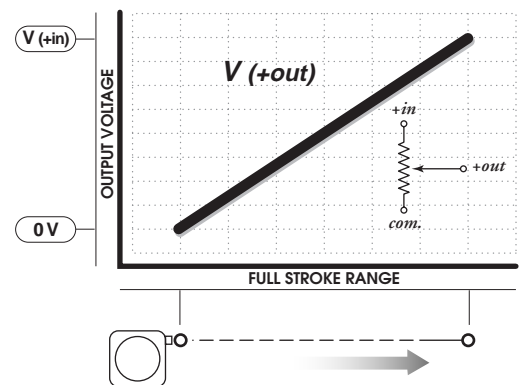


NOTE: ALL DIMENSIONS ARE IN INCHES [MM]

The MTA is part of Celesco's new miniature line of cable-extension position transducers that is perfect for short-ranged testing and control applications where space is at a premium.

This transducer uses a high-cycle conductive plastic potentiometer to provide a precision voltage divider feedback signal for measurement ranges of 3 or 5 inches full stroke. With an accuracy of $\pm 0.15\%$ and a repeatability of $\pm 0.02\%$, the MTA conveniently mounts using servo-clips for easy rotational adjustment.

Electrical Output Signal:



Latin Tech, Inc.

www.lt-automation.com • info@lt-automation.com

MTA • Cable-Extension Transducer • Potentiometric Output

Ordering Information:

Model Number:

MTA - **- 5K** -

order code: **R** **A** **B** **C**

Sample Model Number:

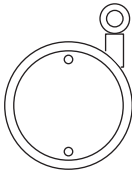
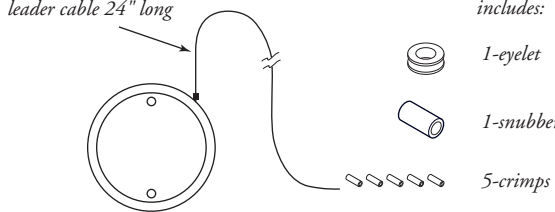
MTA - 3E - 5KC - MB

- R** range: 3 inches
- A** measuring cable termination: eyelet
- B** electrical connection: instrumentation cable, 40-in.
- C** mounting bracket: yes

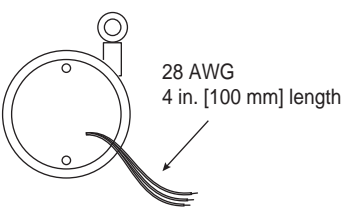
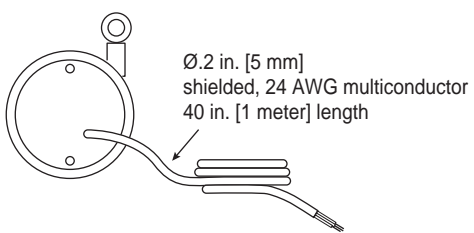
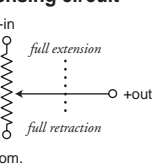
Full Stroke Range:

R order code:	3	5
full stroke range, min:	3 inches	5 inches
std. cable tension ($\pm 25\%$):	2.0 oz.	1.2 oz.
max. acceleration:	30 G's	3 G's

Measuring Cable Termination:

A order code:	E	L
description:	Eyelet	Leader Cable
		
		includes: 1-eyelet 1-snubber 5-crimps

Electrical Connection:

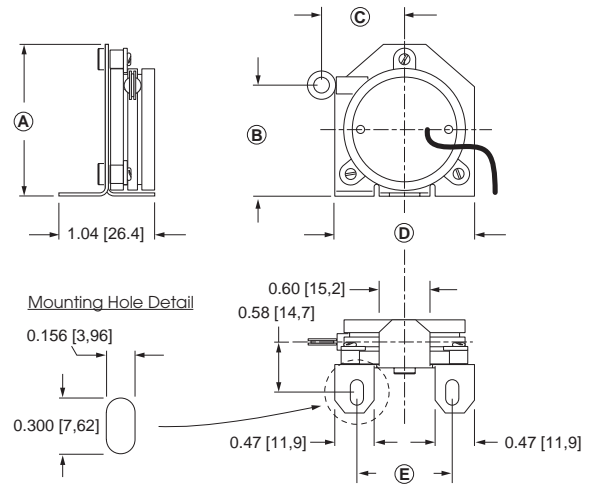
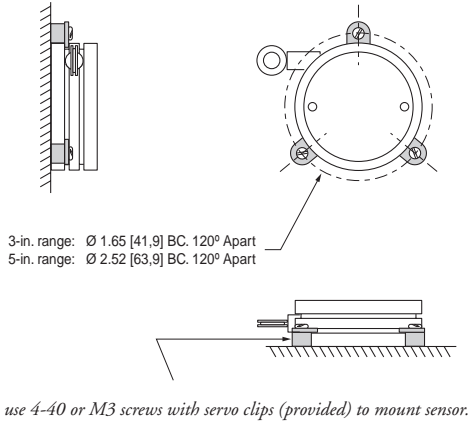
B order code:	W	C
description:	4-inch Wire Leads	40-inch Instrumentation Cable
		
	<p>sensing circuit</p>  <p>wiring connections</p> <p>+in = brown +out = red com. = orange</p>	<p>wiring connections</p> <p>+in = red +out = green com. = black</p>

Ordering Information (cont.):

Mounting Options:

④ *order code:* blank
 Servo Clips (no bracket)

MB
 Mounting Bracket



	<u>3-inch Range</u>	<u>5-inch Range</u>
Ⓐ	1.8 [46]	3.0 [75]
Ⓑ	1.3 [33]	2.3 [59]
Ⓒ	1.0 [25]	1.2 [31]
Ⓓ	1.7 [42]	2.4 [62]
Ⓔ	1.13 [28.6]	1.87 [47.6]

ALL DIMENSIONS ARE IN INCHES[MM]